

# DIMENSIONS

OFFICE OF DESIGN AND CONSTRUCTION TECHNICAL BULLETIN

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→ WILLIAM F. SULLIVAN  
NAMED PBS COMMISSIONER



William F. Sullivan has been named Public Buildings Service Commissioner effective February 17, 1985.

Prior to his appointment with PBS, Mr. Sullivan served as Associate Deputy Administrator for Logistics the Veterans Administration.

Since 1981, he managed the Veterans Administration's \$940 million construction program and \$2 billion procurement system which included the agency's space, furnishings, supplies and printing requirements.

Prior to joining the Federal work force, Mr. Sullivan served as Manager of Government Affairs for the American Hoechst Corporation in New Jersey, and Director of Government Relations for Hauck & Associates in Washington, D.C.

✓ Mr. Sullivan attended the University of Maine, and was graduated from the University of Michigan summa cum laude with a bachelor's degree in political science and international relations. He received a doctor of law degree from The George Washington University Law School in Washington, D.C., and is a member of the District of Columbia Bar Association.

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## HI-TECH WORKSHOP

The Hi-Tech training courses mentioned in the last issue of Dimensions are being rescheduled. If possible, the Office of Design and Construction will conduct the series of overview-workshops some time this summer. We will keep you advised when firm course dates can be set up. Sorry about that!

If you have questions and/or agenda items you would like presented, please call David Eakin on FTS 566-1726, or Dwain Warne on FTS 566-1770 (PCP).

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## CAMOUFLAGED SECURITY BARRIERS AT THE DEPARTMENT OF STATE

Due to significant increases in acts of terrorism on buildings and structures around the world, the Department of State recognized that their main building in Washington, D.C. was a prime target for possible terrorist attacks. Therefore, the Department immediately installed concrete road barriers, typically referred to as "Jersey" barriers, in front of the main entrances of the Department of State Building. This was to discourage terrorists from attempting to crash vehicles through the vulnerable glass entrances. Although the barriers may be effective, their obvious purpose was felt by the Department to pose a challenge to terrorist groups. They also depicted an undesirable siege mentality, as well as causing a source of administrative embarrassment.

Subsequently, the Department asked the GSA's National Capital Region to place the highest priority on alleviating this situation. They requested that permanent security barriers be designed and constructed in order to effectively take the place of the temporary "Jersey" barriers and be more aesthetically pleasing.

After the objective and specific requirements were prescribed by the Department, other subsidiary design goals were established in order to provide for a totally successful solution. These included such goals as compliance with firesafety egress requirements, and maintaining direct and convenient pedestrian circulation patterns around the barriers to complement the building's architectural design

and to enhance the formality and appearance of the entrances. The architect also strived to provide a solution that was not obvious as to its purpose, and to make any additions look as though they were part of the building's original design.

In consideration of the objectives and established goals of the architect, the final design solution varied for each entrance and the corners of the building. For instance, large granite-faced planters followed the curving drive at the main diplomatic entrance, emphasizing its formality and grand approach. At a heavily used employee bus stop entrance, custom designed bench units were used as barriers. The original 21st Street entrance was drastically altered by extending the entrance platform with terraced planter walls, granite-faced bollards, and a limestone-clad canopy, all of which provided disguised protection and a more impressive entrance. Careful attention was also given to maintaining convenient circulation, matching of existing materials and details, and conformance with surrounding site elements in the massing and scale of the new structures.

The designs were closely coordinated and favorably received by the Fine Arts Commission, National Capital Planning Commission, and the Department of State. The project was designed in its entirety by GSA in-house architects and engineers, with an estimated construction cost of \$1,300,000.

For further information, contact Frank Miles (WPCPA), FTS 472-4590.

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U.S. CUSTOM HOUSE AND POST OFFICE  
ST. LOUIS, MISSOURI

The Federal Government building commonly known as the Old Post Office, but more properly titled the U.S. Custom House and Post Office, in downtown St. Louis, is a National Historic Landmark, one of only some two dozen structures in the inventory of the Public Buildings Service (PBS) with that status. Since many of the PBS National Historic Landmark structures received their status because they happen to be within National Historic Landmark Districts, the significance of the relative few that achieved such status strictly on their own merits must be seen as something extra special.

The Old Post Office is a survivor building. Its most dramatic success in that regard was its escape in the 1960's from the threat of the wrecker's ball. As a result of national legislation in the late 1960's and heightened public sensitivity in the 1970's to the worthy purpose of historic preservation, the venerable edifice gained a new lease on life. But preceding that brush with disaster, there was a long history of retention and salvage resulting in the continued use and availability of the original fabric of the structure--even though significant elements had been somewhat altered or obscured. Fortunately, those

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modifications did not preclude the dedicated restoration program that recaptured much of the original architecture and ambience.

The historical and architectural importance of this building has been researched and documented on numerous occasions, particularly in the past decade during its rehabilitation. The building was the subject of Historic Structure Reports prepared in 1976 (Orin Bullock) and 1979 (James Marston Fitch), in addition to articles in various publications, a GSA Environmental Impact Statement (1977), and a National Register Nomination prepared by the National Park Service (1970).

The Old Post Office was designed by Alfred B. Mullett (1834-1890) in 1872. Construction began in 1873 and finished in 1884. Mullett, whose only other major monument still standing is the Old Executive Office Building in Washington, D.C., resigned as Supervising Architect of the Treasury in 1874. He was succeeded by William C. Potter who did little, if anything, to alter Mullett's design, and who resigned in mid-1876. The next Supervising Architect, James G. Hill (1879), had worked under both Mullett and Potter. Hill stayed in that post almost to the end of 1883, in effect seeing the job to completion.

The Old Post Office is a landmark and a monument, but it has been many buildings in the century of its existence--customhouse, courthouse, post office, Government offices, public service facilities (tax and recruiting offices), subtreasury, and congressional offices. In recent decades, it assumed the roles of tourist information center and commercial

complex for retail sales, dining and entertainment. In the 1960's-1970, during a time when the Federal Government promoted its disposal as excess property, proposals were made to use it as a "people center," incorporating a luxury hotel of 100 guest suites with "a variety of tenants...selected for a complementary mixture of size and type of enterprise. A partial list of appropriate commercial activities includes gourmet food and wines, gentleman's saloon, leather fashions, oriental imports, Dixieland jazz, old fashioned bakery, Bavarian pretzel shop and old-fashioned ice cream parlor, Chinese restaurant, toy shop, bookstore, wine garden, French restaurant, art gallery, pub, tobacconist, nightclub, antiques shop, silversmith, florist, coffee house, South American crafts gallery, international restaurant, pottery shop, and old-time soda fountain."

Mullett was responsible for several Federal Government buildings designed in the highly plastic French Second Empire style. They were large, ornate, and a definite change from the typical Classical Government buildings with their sloping mansards, projecting pavilions, and elaborate surface detail, including sculpture in the round. By the late 1930's, most of them had disappeared, leaving only the St. Louis Old Post Office and the Washington Old Executive Office Building. The latter was completed in 1887 and, as the largest of all Mullett's buildings, housed the central offices of the State, War and Navy Departments.

The Old Post Office occupies the block bounded by Eighth (east), Locust (north), Ninth (west), and Olive (south) Streets in St. Louis.

The site is almost entirely covered by the building, and a deep moat (8 feet wide and 29 feet deep) surrounds the building. It is a four-storied granite building with a slate-covered, steep-sided mansard dome springing from a rectangular base atop the projecting central pavilion of the south facade. The dome, lacking an ornamental belvedere and elaborate cupola which were removed in 1925, now reaches a height of 125 feet. The eminent American sculptor, Daniel Chester French (1850-1931), had as his first major commission the sculpture group "Peace and Vigilance"--two semi-reclining female figures and a spread-winged eagle carved in marble--which is located at the base of the dome. French, the son of the Assistant Secretary of the Treasury, received the commission in 1876, and the sculpture was completed in 1882.

A central cortile (approximately 75 feet square) was originally sheltered by a skylight at the main roof level. It was eventually replaced by one at the second floor level. The recent rehabilitation replaced that skylight with a new one back at the main roof level.

In addition to the four stories, the building has an attic, a basement, and a subbasement. The building, approximately 180 feet by 235 feet, is surrounded by a deep 29-foot areaway. There is a tunnel along Eighth Street, flanking the east side of the building which, when it was built (1873), served for direct mail delivery and shipment, but now is used only by freight trains bypassing the building on their way to and from Eads Bridge.

The spacious, elaborate interiors were adapted, modified and

compromised over the years to the point where their features were obscured or, through neglect, just lost their architectural impact. Major remodelings diminished the grand effect of the public spaces, primarily fronting on Olive Street. Postal services in the building also diminished until, finally in mid-1975, they ceased with the departure of a postal substation. The high-ceilinged, high-styled courtrooms were subdivided horizontally and vertically to accommodate offices and utility spaces, particularly in the 1920's and 1930's--yet, by the mid-1930's all court functions were out of the building.

On the positive side, much of the original architecture, appurtenances and ornament remained intact. Even elements of the original heating, ventilating, lighting, transportation and plumbing systems--although superseded by later technology--remained operable at the time of the rehabilitation. This fortunate situation obviated the need for "restoration" at the time of the rehabilitation. Many components could be retained, refurbished and reused, something that might have been impossible technically or economically had they not remained available and in place.

Full occupancy of the Old Post Office ended in 1961 (as noted, postal service remained, decreasing until it ceased in 1975). In the early 1960's, there were serious intentions to obliterate the old structure and rebuild on the site. The National Park Service certified the architectural/historical importance of the Old Post Office, effectively blocking the progress of that project. Following nomination of the building to the

National Register of Historic Places and its achievement of National Historic Landmark status, it became the subject of proposals for adaptive reuse. A 1974 revitalization plan for downtown St. Louis encouraged a wide range of commercial uses for the Old Post Office, some of which are noted above. The 1976 Public Buildings Cooperative Use Act provided a special incentive to make available some space for commercial, cultural, educational or recreational outleasing. Accordingly, the rehabilitation plan developed in 1974 did make such provision, particularly for commercial activities in the lower levels, similar to the well-publicized "Pavilion" at the Washington Old Post Office.

Now the rehabilitated building provides office space for several Executive agencies and members of the Missouri congressional delegation. The Postal Service is an occupant once again, although it occupies little more than 1 percent of the total space. The ground floor, basement and subbasement of the Old Post Office recently were leased for development as a "cooperative use" retail sales and fast-foods center. The salvage, rehabilitation and reuse of this last remaining example of an outstanding type of public architecture represents a direction the Public Building Service may increasingly follow in the future. This project has set a high standard that should now be the basis for all future historic restoration projects.

The St. Louis Old Post Office is the subject of a post-occupancy evaluation currently under preparation by an interdisciplinary PBS team out of the Central Office and Region 6.

Its findings and recommendations will be available in several weeks.

For further information, contact Walter Roth, PCPC, on FTS 566-0987.

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#### PENTAGON WALKBRIDGE

The Pentagon Walkbridge connects the Pentagon Building, the Pentagon Officers' Athletic Club, and the North Parking Lot. It serves as an overpass to Virginia State Highway Route 110 and uses four intermediate spans. The length and width of the bridge are 160 feet and 35 feet, respectively. Originally designed in 1942 for HS-20 truck loading, it is constructed of reinforced concrete with variable depth T-beams.

In 1981, it was observed that the bridge superstructure was in an advanced state of deterioration due to the penetration of water and chloride into the bridge deck. As a result, the Design and Construction Division of the National Capital Region initiated the design process for bridge repairs. Concrete testing was conducted to confirm the advanced state of fabric deterioration and the extent of repairs needed to restore the bridge. It was determined that complete replacement of the superstructure was needed.

The original architectural character of the bridge could not be altered because of aesthetic and historic preservation reasons. Construction space was limited for the installation of shoring and bracing because of restrictions imposed by the Virginia Department of Highways and Transportation to keep the highway operational during

construction. The approach to the bridge at each end had to be kept open, and a temporary wood walk had to be provided for the use of Pentagon employees during the construction phase. Epoxy-coated reinforcing bars and high strength air-entrained concrete were used in the superstructure design. This technique provided better protection of the bridge superstructure against deterioration due to weather and deicing agents.

The bridge superstructure was designed by a National Capital Region Structural Engineer using the Federal Highway Administration Computer Program. Construction cost for the project was \$660,000.

For further information, call Frank Miles (WPCPA) on FTS 472-4590.

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#### POWER PROBLEMS CAUSE COMPUTER PROBLEMS

Computer problems are often blamed on computer operators/personnel, or the equipment. Unsuitable power often causes data processing errors, computer program wipe-out, false readings, erratic operation, false alarms, and/or system damage. Blackouts, brownouts (planned reductions in power), voltage sags and surges, and power line noise transient all decrease reliability and quality of commercial power.

#### Computer Systems are Vulnerable

Computers are designed to operate from a clean, constant supply of AC power. AC power must be kept within manufacturer-specified tolerances in order for sensitive equipment to operate properly and

safely. Power line disturbances cause variations outside the specified tolerance of data processing equipment.

Computer sites are constantly subjected to power disturbances that can interfere with normal computer operations. Two types of power disturbances are responsible for 99.5 percent of all power-related computer problems. They are:

#### Power Line Noise

Power line noise is similar to static on a radio broadcast, except that in a computer environment it is more than just an annoyance. Power line noise can be misread as significant data by a computer, causing untraceable data entry. Both of the following types of noise can cause wipe-outs, false readings, and system damage.

- . Ringing transients caused by workload switching and the switching of power-factor correction capacitors, and

- . Voltage spikes caused by lightning and by the operation of heavy equipment (e.g., motors, elevators, and air-conditioners).



#### Voltage Fluctuations

Fluctuating voltage is a common phenomenon that can cause lights to momentarily dim or cause fuses to blow. Fluctuating voltage also creates serious operational problems for sensitive electronic equipment. When voltage is too high, equipment damage may occur; when it is too low, a computer may lose significant portions of its data and may function improperly.



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These malfunctions can result in unprogramed data changes and errors in logic and memory. Sources of voltage fluctuations include:

- . Transmission line voltage drops between the utility substation and the user's service entrance caused by normal transmission line impedances,

- . Intra-building voltage drops between the service entrance and the point of use, resulting from normal impedances found in cables, connectors, and fuses,

- . Brownouts which are initiated by the utilities during periods of peak usage (in severe cases, a 10 percent reduction in voltage may occur), and

- . Voltage sags and surges caused by faults on the power line, by the resultant actions of fault-clearing devices, by heavy loads on the power line (e.g., machine start-up), and by the slow reaction time of utility regulating equipment.

It is important to note that due to the common occurrence of voltage fluctuations, AC voltage may drop as much as 12 percent below nominal by the time it reaches user equipment. Since most sensitive electronic equipment is designed to operate within a tolerance band of only +/- 10 percent of nominal, these voltage drops may cause serious equipment problems even under normal conditions.

#### Power Outages

The incidence of power outages (blackouts) is increasing as the demand for electrical power increases. The most common causes are:

- . Overload of the utility system,
- . Overload of the user's power distribution system, and
- . Damage to the utility system.

Power outages can ruin computer programs, creating the need for expensive, and time-consuming reprogramming.

#### Solutions

The sensitive computer-based equipment must be protected against all types of power disturbances. An interface is required between the incoming line and the user's sensitive equipment to prevent the power line disturbances. Such equipment may be noise suppressing isolators, voltage regulators, or a combination of both isolators and regulators, uninterruptible power systems.

For further information, contact Vinod Wadhwa, P.E., Electrical Engineer, on FTS 566-0791.

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#### ABSORPTION REFRIGERATION MACHINE VS. ELECTRIC-DRIVE REFRIGERATION MACHINE

Many projects are designed with selection of equipment being done on the basis of custom in an area. This is particularly true of repair and alteration projects where the tendency is to replace existing equipment in kind, no matter when it was originally selected. It is recommended that a very rigorous economic analysis be performed any time an absorption machine is proposed as a new or replacement selection.



Absorption machines have been in use for 25 years and are still in use in numerous GSA buildings. In the early 1960's, in some locations steam was available at throwaway prices since it was a byproduct of a process. So, rather than waste it, steam was used for refrigeration. The steam was cost effective and energy efficient.

For the past 10 years, the availability of steam at a lower price has been very limited. In major metropolitan areas, prices have risen to \$15 to \$20 per 1000 pounds. In areas where steam is produced from natural gas or fuel oil, the prices are even higher.

The cost of energy--electric, gas, oil, and central steam--has increased considerably. This provides a challenge for analysis in proper selection of a refrigeration machine to be used in an existing and/or a new building.

Following is an analysis of the efficiency of an absorption machine and an electric machine:

#### Absorption Machine

Generally, there are three types of absorption machines available from standard manufacturers:

- Single stage,
- Double stage, and
- High-performance type.

Usually these machines require from 12 to 20 pounds of steam per ton of refrigeration, i.e., 12,000 to 20,000 Btu's of energy to produce one ton of cooling. Fuel costs can be evaluated as follows: Fuel Oil No. 2 at \$1.10 per gallon provides approximately 140,000 Btu's. Normally the boiler efficiency is about 75 percent. Energy cost to

produce one ton of cooling ranges from 12 to 20 cents. Costs are similar if natural gas is utilized.



#### Electric Driven Refrigeration Machine

Four types of machines are commonly available:

- Reciprocating type,
- Centrifugal-open,
- Centrifugal-closed, and
- Screw type.

Generally the energy usage for these machines is from 0.6 kw to 0.9 kw per ton of refrigeration. The price for energy costs may vary from \$.03 to \$.08 per kw, meaning the cost per ton of refrigeration is from 1.8 to 6.4 cents. This does not include the demand charge. In some areas, the demand may be as high as \$30 per kw per month, which can be offset by providing storage.

It should also be noted that absorption machines require a higher volume of condenser water, more pumping energy, a larger cooling tower, and the normal operation of the machine has to be continuous. Electric machines are easier to operate, maintain, and can be started instantly.

The initial cost of an absorption machine is substantially higher than electric. It requires more space, more controls, and in some instances an added boiler.

From the above analysis, it is recommended that in all new or repair and alteration projects, electric machines be analyzed. Most probably, they will be more efficient.

For additional information, contact Vijay Gupta (PCP) on FTS 566-0628.

TO BTU OR NOT TO BTU--

THAT IS THE QUESTION

There is apparently some confusion as to the nature of current energy program policies. Stop referring to the 55,000 BTU/GSA boundary energy goal as the performance feature of the GSA energy program! The 55,000 BTU/GSF goal is no longer applied to new construction, nor is the 75,000 BTU/GSF goal to be applied to existing buildings.

These previous performance goals were applied between 1974 and 1979 as a means of instilling a measure of energy consciousness in major construction projects. They were universal in application, presuming that all building space operated to a set of generic conditions. The goals did not allow for non-office operations, such as computer space, cafeteria operations, site lighting, joint-use areas, and extended hour occupancies. It was never intended, nor could it be adapted, to predict actual building energy performance. It had to go!

In 1979, the Office of Design and Construction (ODC) initiated a policy to apply project specific overall building energy goals in an attempt to correct the previous deficiencies by accounting for all space types and their proportioned energy impact on the building. Energy goals were also more sensitive to innovations which had taken place over preceding years of the energy program. As a result, buildings were targeted with boundary annual goals ranging between 25,000 BTU/GSF and 88,000 BTU/GSF, with most generic office space placed between 32,000 and 35,000 BTU/GSF. Although the generally lower performance numbers caused

increased emphasis on energy program needs, there were still administrative and technical problems in dealing with requirements for computer verification of attainment.

Since 1981, ODC has favored the use of INDIVIDUAL SYSTEM PERFORMANCE CRITERIA. Now, each building system receives energy performance criteria, typically based upon peak load usage, or a prescriptive feature statement. Hence, lighting systems call for rated illuminance levels at a specific watt/square foot value; refrigeration equipment is limited based upon peak load KW/ton, or EER values; boilers are specified in terms of peak load efficiency; and building automation systems are simply required. Although presently incomplete, these system performance criteria are being placed in the GSA Handbook, "Quality Standards for Design and Construction," PBS P 3430.1. Such system criteria have also been used in design programming directives where performance criteria were not available in the design handbook.

System performance criteria are easier to verify by GSA design staff as complicated computer verification is no longer needed. It is also better suited to smaller repair and alteration projects which could not practically support the rigor of computer verification. So when asked about GSA's energy conservation design criteria, don't refer to overall building performance goals--relate to individual building system criteria!

For further information, call David Eakin (PCP) on FTS 566-1726.

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## GSA HAPPENINGS

### U.S.-U.S.S.R. AGREEMENT ON BUILDING DESIGN AND CONSTRUCTION TECHNOLOGY

Since June 28, 1974, the Department of Housing and Urban Development (DHUD) has been the U.S. Executive agency for a Cooperative Agreement on Housing and Other Construction with the Soviet Union. One of the working groups named in the agreement is Building Design and Construction Management to which the General Services Administration (GSA) is the lead agency. Cooperative activities between the two Governments included visits from technical experts from both sides to study and share technology on programs that include norms, standards and measures of testing construction, a glossary of design and construction terms, technology of design, energy conservation, adaptive reuse and restoration, and construction management. After the Soviet invasion of Afghanistan in December 1979, relations deteriorated and activities were reduced to an occasional correspondence exchange.

Following the President's speech in June 1984, which encourages efforts to renew mutually beneficial program activities with the Soviet Government, the GSA was contacted by the DHUD in an effort to determine whether it was prepared to resume its former responsibilities. In December 1984, the Acting Administrator replied in the affirmative to Ambassador T. Britton, Assistant to the Secretary for International Affairs, naming Mr. William Lawson, Assistant Commissioner for Design and Construction, as the GSA representative for the working group.

Mr. Lawson met with Ambassador Britton on January 9, 1985, and submitted an outline of potential program areas for joint participation in the U.S.-U.S.S.R. working group.

Ambassador Britton will meet with the Soviets in Moscow during 1985 to discuss and establish a working agenda for resumption of the Cooperative Agreement. Mr. Lawson was requested by the Ambassador to be a part of that visiting delegation.

The potential for mutual benefit exists through an exchange of technical information pertinent to our respective building programs.

With our involvement in the Vocational Training Program for Saudi Arabia, Technical Advisory Programs in Kuwait, a reinstitution of the U.S.-U.S.S.R. protocol agreement, and a budding similar agreement with the Peoples Republic of China, GSA/PBS is becoming an international design and construction influence. We must be doing something right!!!!

For further information, contact Bernard Adamec (PCP) on FTS 566-1771.

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## VALUE ENGINEERING

(An Expression of Opinion  
by Dale Daucher)

Value Engineering (VE) or Value Management, whichever you prefer to call it, has come to mean many things since its inception in PBS in the early 1970's.

Formally, VE is defined in GSA Order ADM 8030.1 dated September 29, 1983, as "A systematic effort directed at analyzing the function of goods and services to achieve user required functions at the lowest life cycle cost without sacrifice of quality."

Informally, VE has come to be known as:

- . A cheaper way to do the job;
- . An opportunity for an architect-engineer (A-E) to get paid for what he/she should be doing anyway;
- . A Central Office (CO) program imposed without providing regional resources;
- . Don Parker's program; and
- . Something we do all the time, but don't call it that.

To understand why VE has an image problem, let's look at each of the perceptions expressed and try to understand where they came from, and possibly what can be done to correct them.

. VE, if confused with cost cutting, can result in increasing life cycle cost by substituting materials that are inferior in quality or aesthetically poor in appearance. VE, if properly applied, questions

the necessity of the function performed--not the cost of the item serving the function. For example, while a cost reduction approach would look to buying a cheaper lockset for a door, VE would look to eliminating the lockset and installing a pushplate. VE eliminates unwanted functions and reduces first costs and maintenance costs.

. The view that paying an A-E to do VE is unnecessary was expressed by Mike Marschall when he was Commissioner of PBS in 1980. And when a Commissioner holds such an opinion, it becomes policy. What Admiral Marschall refused to understand was that the A-E is not required to optimize his design by studying alternatives--he is required to present acceptable solutions that meet our criteria within the time provided, and in addition, make a profit. Some A-E's have learned that challenging criteria can lead to lost time and lost profit. VE affords the time and fee to challenge everything and, most importantly, affords an interdisciplinary examination of systems and materials with the purpose of maximizing the quality of the design and minimizing life cycle costs.

. The imposed program without resources is a valid and unfortunate outcome of how VE has been implemented in PBS. If we want to pursue VE, we will need to supply B/A 90 funds for its accomplishment. One-half percent of the estimated construction cost of each prospectus project identified for VE analysis has been suggested.

. When an individual, Don Parker in the case of VE, has as his primary responsibility to make a program successful, PBS runs the

risk of identifying with the personality and not with the program. It's reasonable to include that VE would not have been such a demonstrated success as it was without Don Parker. However, for a program that identifies and eliminates unnecessary costs, it needs to be self-reinforcing by individual successes at the grassroots level--not an individual at the headquarters' level.

. Last, but not least, the notion that we are always looking to reduce unnecessary costs means we are doing VE, but not identifying it as such. Here we are dealing with a matter of education. VE, like other engineering disciplines, needs to be taught by a competent, qualified instructor so we know what VE is and what it isn't.

You may be asking "What is the Point?". The point is that VE in design and construction can be professionally rewarding and a cost effective problem-solving technique. This office is revising our VE policy to change the emphasis from a CO perspective to a grassroots, regional perspective. What this office perceives as the CO role is:

- . Establish a VE policy;
- . Provide and fund VE training;
- . Fund for VE in B/A 90;
- . Advise on the selection of VE consultants; and
- . Collect program results and prepare annual reports.

The new regional role has yet to be defined. As participating architects, engineers, and managers, you

are invited to comment and to make suggestions concerning regional and CO roles in revitalizing VE in design and construction.

If you would like to comment on the above, call or write Dale E. Daucher, P.E., VE Coordinator, Office of Design and Construction (PCP) on FTS 566-1997.

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